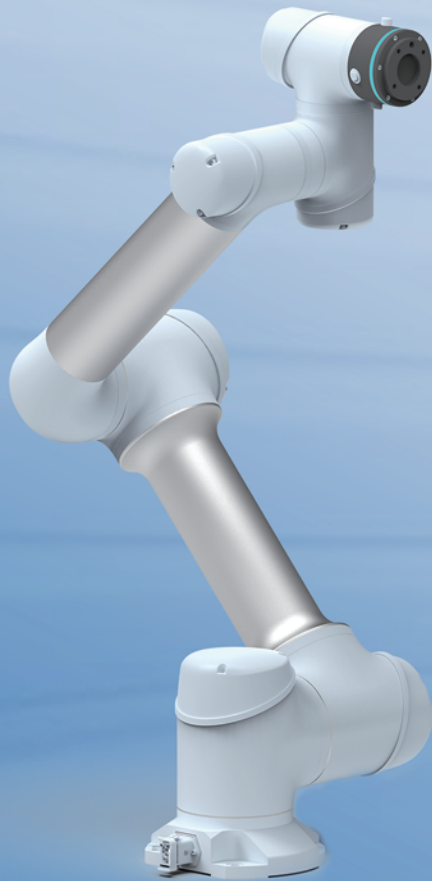




GCR

Series Cobot



DUCO ROBOTS CO., LTD.

<https://www.ducorobots.com/>

We are Dedicated to the Advancement of Cobot.

GCR Series Cobot



Safety

Equipped with conventional collision detection, force and power detection, etc., TUV SUD certification, CE certification. The first in China to pass the IEC61508 certification; human-machine cooperation is safer.



Smart

Plug and play, a variety of scenarios software package plus support (welding, palletizing, etc.); a variety of external interface support (DI, DO, AI/O, etc.)
Support cloud robot data monitoring, remote OTA upgrade;
support multiple devices one-click deployment and data remote backup



Wide Application

2D/3D vision depth support for detection, localization, recognition, etc;
Force control, external axis and other ecological support perfect, support for secondary development of the SDK



Easy Maintenance

Support drag-and-drop demonstration style, lower the threshold of use, easy to maneuver, 4 hours of training, you can realize the beginner programming.



Light and Handy

High-load robots with load to weight ratios up to 1:2.44.
Adoption of a new generation of robot control cabinets 50%;
Reduction in size and 30 % reduction in weight.
Effectively improve space utilization.



ECO

Power consumption as low as 200W No need to replace lubricating oil.
Reduce the cost of EIA and help the development of dual carbon.

Industry



Automotive Industry



3C Industry



Spraying Industry



Education Industry



Electrical Industry



Agriculture and Forestry Industry



Petrochemical Industry



Medical Industry



Pan Industry

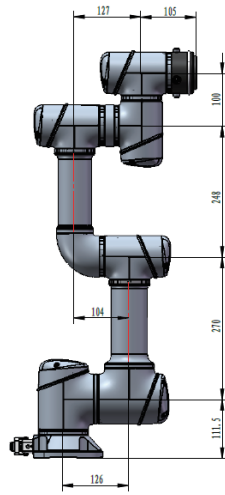


Consumer Goods Industry

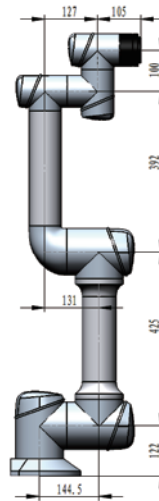
Product Introduction

There are ten types of 6-axis cobot; GCR3-618,GCR5-910,GCR7-910,GCR10-1300,GCR12-1300,GCR16-960,GCR16-2000,GCR20-1400,GCR25-1800,GCR30-1100.With significant advantages--higher payload and working range, and features of cobot such as collaborativesafety, easy-to-use and energy-saving, these robots can adapt to more application needs.

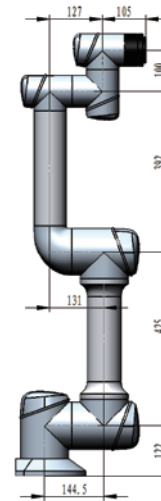
Technical Parameters



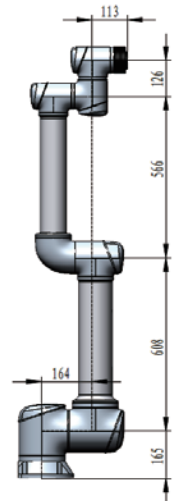
GCR3-618



GCR5-910



GCR7-910



GCR10-1300

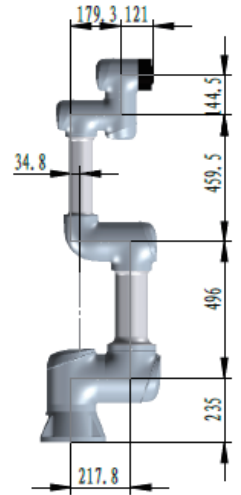
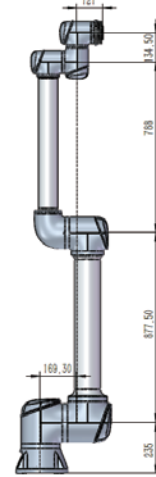
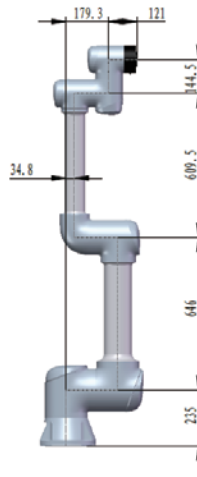
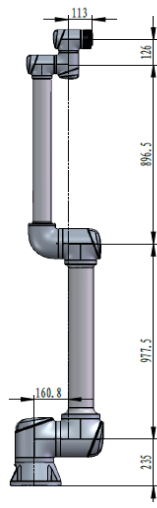
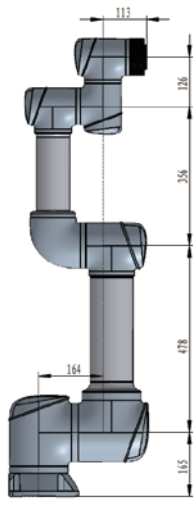
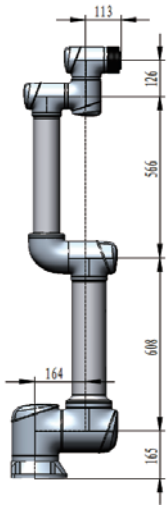
Max Payload	3kg	5kg	7kg	10kg
Max TCP Speed	1.0m/s	3.6m/s	3.6m/s	3.8m/s
Max Straight-line Speed	0.8m/s	1.5m/s	1.5m/s	1.5m/s
Reach	618mm	917mm	917mm	1300mm
Repeatability	±0.02mm	±0.02mm	±0.02mm	±0.03mm
Joint	Range	Max Speed		
J4/J5/J6	±360°	225°/s	225°/s	225°/s
J3	±360°	225°/s	225°/s	225°/s
J2	±360°	225°/s	225°/s	200°/s
J1	±360°	225°/s	225°/s	180°/s
Power Supply	DC/AC 100-240VAC 47-63Hz 10A			
Power Consumption	Typical Power Consumption200W	Typical Power Consumption200W	Typical Power Consumption200W	Typical Power Consumption400W
Installation	Installed in any Direction			
Robot Dimensions	769x315x150mm	1100x330x200mm	1100x330x200mm	1512x388x205mm
Robot Package Size	532x431x330mm	698x588x450mm	698x588x450mm	958x508x516mm
Net/Gross Weight	13kg/20kg	22kg/30kg	22kg/30kg	37.8kg/46kg

Degree of Freedom 6自由度

IP Class IP54/IP65

Ambient Temperature Range -10°C~50°C

Storage Temperature Range -40°C~55°C



GCR12-1300

GCR16-960

GCR16-2000

GCR20-1400

GC25-1800

GCR30-1100

12kg	16kg	16kg	20kg	25kg	30kg
3.8m/s	3.0m/s	3.5m/s	2.2m/s	2.5m/s	2.0m/s
1.5m/s	1.5m/s	1.8m/s	1.5m/s	1.5m/s	1.0m/s
1300mm	960mm	2000mm	1400mm	1800mm	1100mm
±0.03mm	±0.03mm	±0.05mm	±0.05mm	±0.05mm	±0.05mm

Max Speed

225°/s	225°/s	225°/s	225°/s	225°/s	225°/s
225°/s	225°/s	180°/s	180°/s	150°/s	180°/s
180°/s	180°/s	120°/s	120°/s	100°/s	120°/s
180°/s	180°/s	120°/s	120°/s	120°/s	120°/s

DC/AC 220-240VAC 47-63Hz10A/100-200VAC 47-63Hz 16A

Typical Power Consumption500W

Typical Power Consumption400W

Typical Power Consumption600W

Typical Power Consumption600W

Typical Power Consumption600W

Typical Power Consumption600W

Installed in any Direction

Land tyoe

Installed in any Direction

1512x388x205mm	1180x388x205mm	2300x388x205mm	1695x388x205mm	2300x440x252mm	1395x420x290mm
958x508x516mm	958x508x516mm	1465x516x472mm	1060x500x600mm	1295x540x515mm	1060x500x600mm
37.8kg/46kg	37kg/45kg	60kg/68kg	66kg/75kg	61.6kg/70kg	64kg/75kg

Tool Interface

GB/T 14468.1-50-4-M6(eqv ISO 9409-1)

End Joint I/O

2 Dig I/O, 24V,0.6A

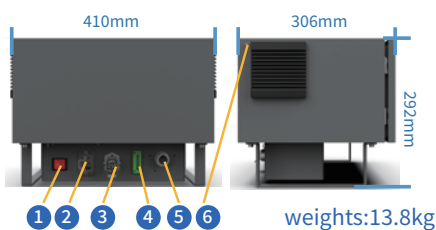
Control System



Control Box & Teach Pendant

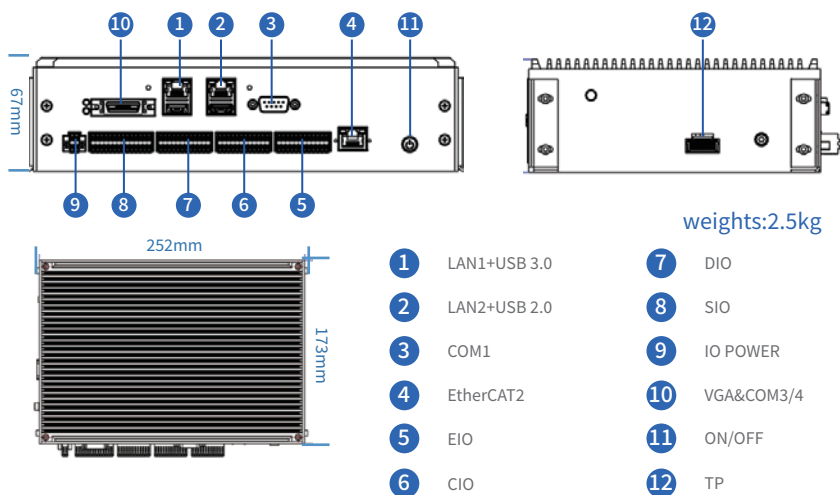
The controller is used to control the robot's operations such as loading and unloading, grasping, polishing, handling, welding, gluing and oiling, as well as realizing the input and output control. The latest DUCO controller has tiny volume while taking into account the safety and flexibility, and has better performance in the field of human cooperation. It can be fully compatible with multiple series of robots, and also can be independently applied to automatic control systems

Control Box



- 1 System Switch
- 2 AC Input
- 3 Robot Arm Interface
- 4 Teach Pendant Shielding Interface
- 5 Teach Pendant Interface
- 6 ANT Interface(Optional WIFI)

Controller



- 1 LAN1+USB 3.0
- 2 LAN2+USB 2.0
- 3 COM1
- 4 EtherCAT2
- 5 EIO
- 6 CIO
- 7 DIO
- 8 SIO
- 9 IO POWER
- 10 VGA&COM3/4
- 11 ON/OFF
- 12 TP

User Interface

DI

User DI	16 Channels(8 channels can be equipped with functional DI)
Input Effective Level	PNPL:-3V-5V,H:11V-30VDC,2-15mA
Switching Time	TON:50ms TOFF:50ms

DO

User DO	16 Channels(8 channels can be equipped with functional DO)
VOUT	PNP, 22-28V,Max:0.5A
LOUT	PNP, <2A(When exceeding 2A, the user needs to expand the power supply)
Switching Time	TON:50ms TOFF:50ms

A I/O

	Input Voltage Signal	0-10V Accuracy ±1%
Analog Voltage Input 2	Input Impedance	48KΩ
	Resolution	12-bit
Analog Voltage Output 2	Output Voltage Signal	0-10V Accuracy ±1%
	Resolution	12-bit

SDI

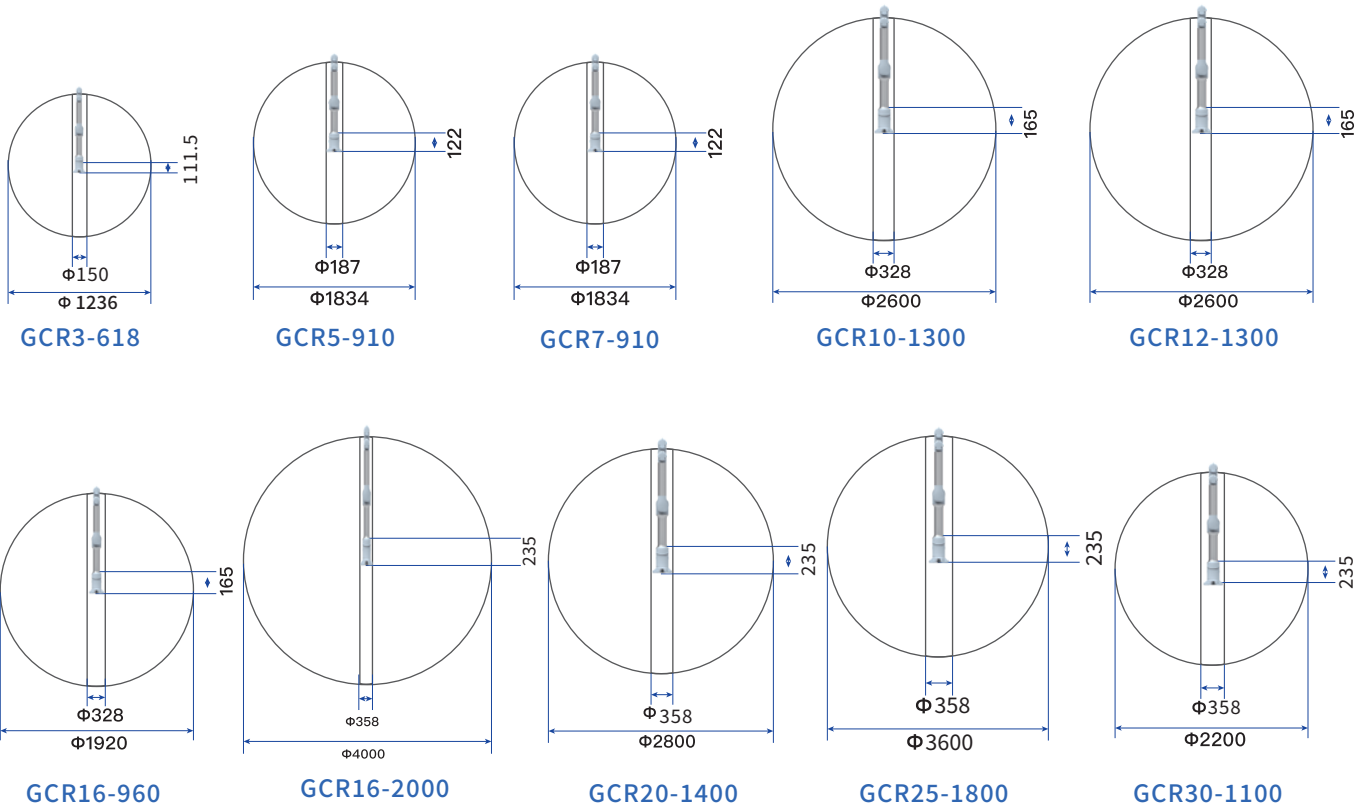
Emergency Signal Input	1Channels(Passive signal, dry contact input)
Protective Stop Input	1Channels(Passive signal, dry contact input)
Configurable Secure Input	2Channels(Passive signal, dry contact input)

SDO

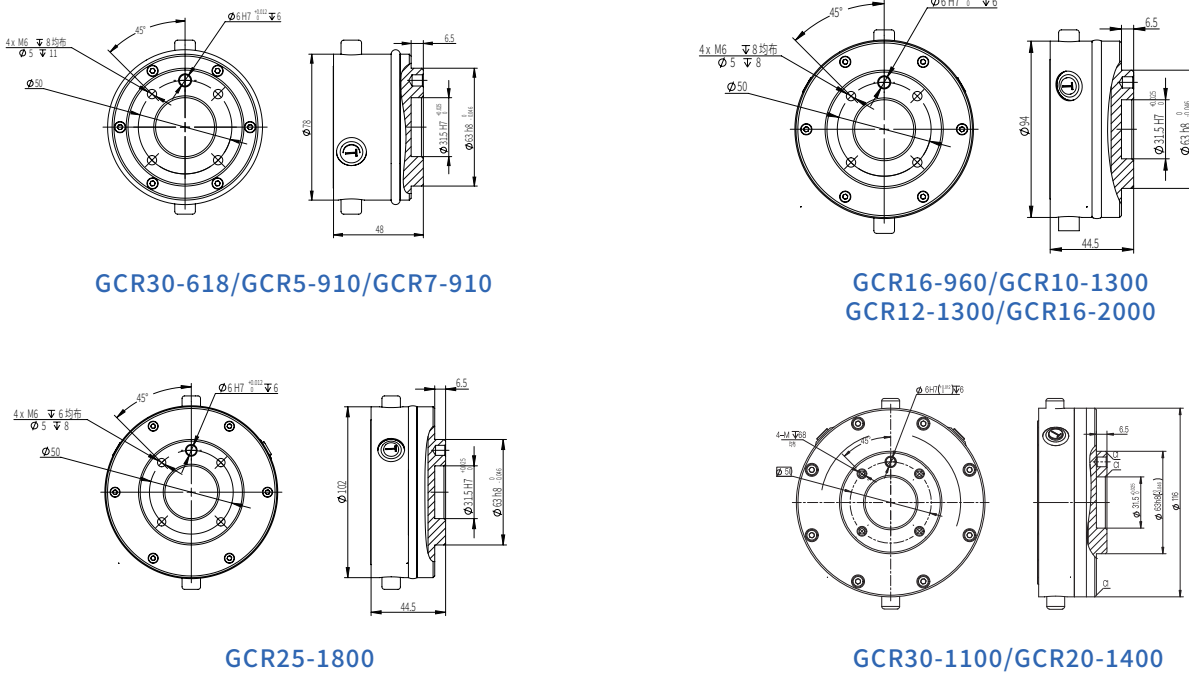
Configurable Secure Output	2Channels(PNP Active Signal)
Emergency Stop Feedback Output	1Channels(PNP Active Signal)
VOUT	23.52V-25.2VDC (Max 0.5A ScP)

COM

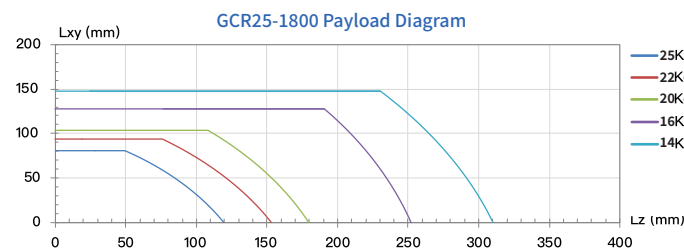
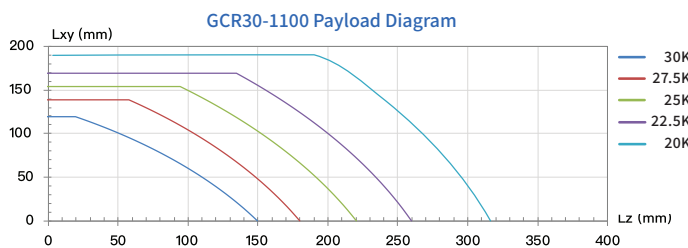
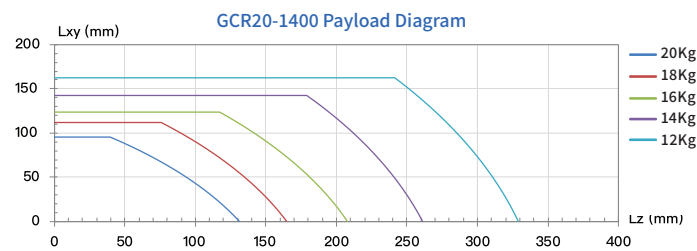
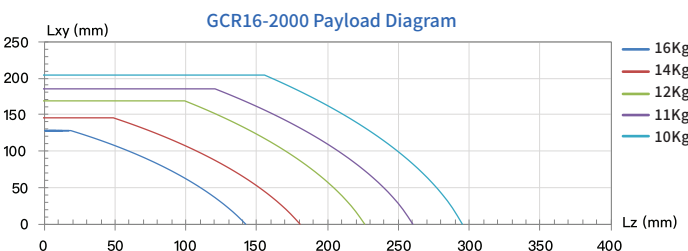
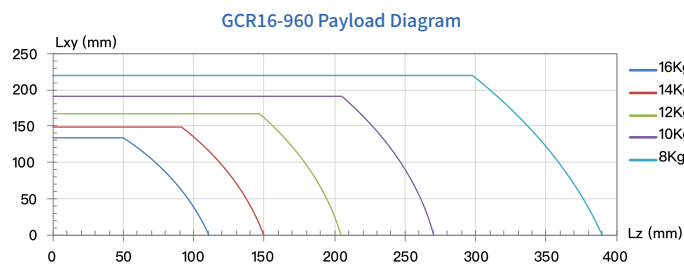
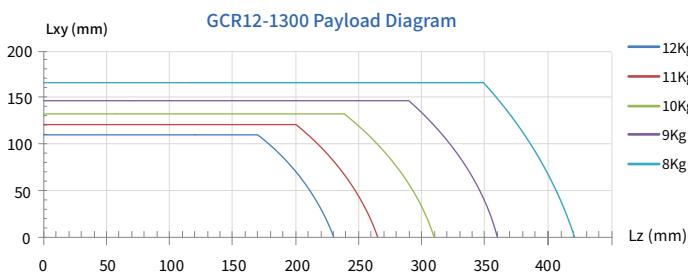
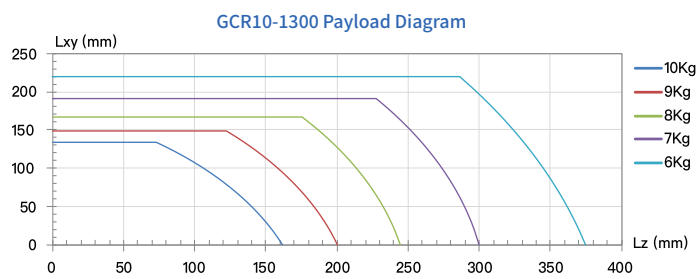
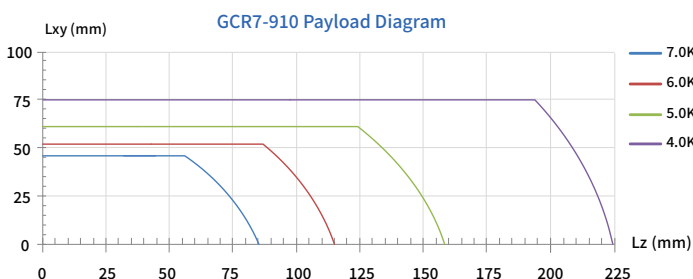
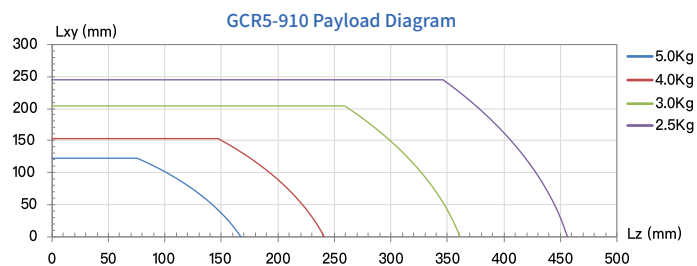
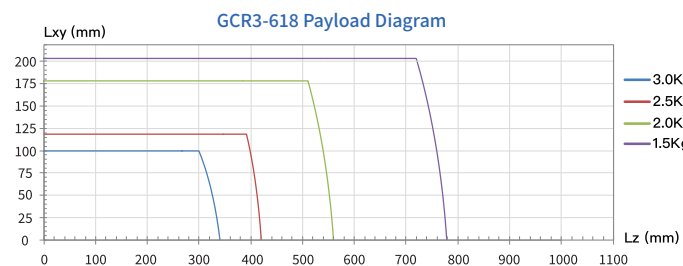
CAN	1Channels, bps configurable 10k, 20k, 50k, 100k, 125k, 250k, 500k, 1000k bps
RS485	1Channels, bps configurable 4800, 9600, 19200, 38400, 115200 bps
LAN	2-way (1-way gigabit, 1-way 100Mbit) Support MODBUS TCP, PROFINFT, TCP IP
EtherCAT	1Channels, EtherCAT COM
INC A+, A-, B+, B-, Z+, Z-	Working voltage: 24VDC Frequency: <200KHz Input: square wave signal



Tool Flange

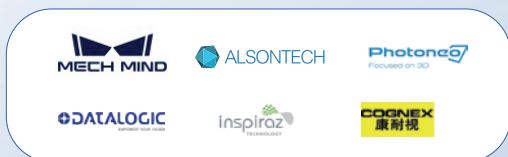


Payload Diagram



Eco-Partners

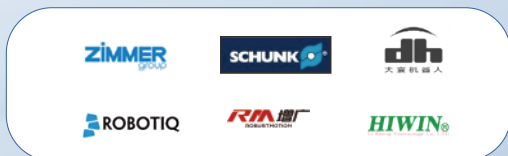
Vision System



Force Sensor



Electrical Gripper



Force Sensor



Laser Scanner



Gateway&IO Expansion Module



Quick-Change Flange



Dress Packs



Simulatin&Off-line Programming



Tightening System



Optical Positioning&3D Scanner



Protective Clothing



Welding Machine



Lifting Column



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- ✉ marketing@ducorobots.com



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